

RAW SEQUENCE LISTING

**The Biotechnology Systems Branch of the Scientific and Technical
Information Center (STIC) no errors detected.**

Application Serial Number: 10/566,866
Source: IFUP
Date Processed by STIC: 2/9/06

ENTERED



IFWP

RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/566,866

DATE: 02/09/2006

TIME: 15:31:34

Input Set : A:\ERP02.002APC SEQLIST.TXT
 Output Set: N:\CRF4\02012006\J566866.raw

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4 <110> APPLICANT: Werling, Dirk
6 <120> TITLE OF INVENTION: ANTIGEN DELIVERY SYSTEM
9 <130> FILE REFERENCE: ERP02.002APC
C--> 11 <140> CURRENT APPLICATION NUMBER: US/10/566,866
C--> 11 <141> CURRENT FILING DATE: 2006-02-02
11 <150> PRIOR APPLICATION NUMBER: PCT/GB2004/003386
12 <151> PRIOR FILING DATE: 2004-08-05
14 <150> PRIOR APPLICATION NUMBER: GB 0318247.4
15 <151> PRIOR FILING DATE: 2003-08-05
17 <160> NUMBER OF SEQ ID NOS: 15
19 <170> SOFTWARE: FastSEQ for Windows Version 4.0
21 <210> SEQ ID NO: 1
22 <211> LENGTH: 577
23 <212> TYPE: DNA
24 <213> ORGANISM: Bos taurus
26 <220> FEATURE:
27 <221> NAME/KEY: misc_feature
28 <222> LOCATION: 34, 53, 189, 258, 289, 357
29 <223> OTHER INFORMATION: n = A,T,C or G
31 <400> SEQUENCE: 1
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33 gcgatctacc agaacctgac ccagctaaa gctgoagtgg gtgagctctc agagaaatcc 120
34 aagctgcagg agatctacca ggagctgacc cagctgaagg ctgcagtggg tgagcttcca 180
35 gagaatcna agcagcagga gatctaccag gagctgaccc ggctgaaggc tgcaagtgggt 240
36 gagcttccag agaaatcnaa gctgcaggag atctaccagg agctgaccng gctgaaggct 300
37 gcagtgggtg agcttccaga gaaatctaag atgcaggaga tctaccagga gctgacncgg 360
38 ctgaaggctg cagtgggtga gctcccagag aaatctaagc agcaggagat ctaccaggag 420
39 ctgacccggc tgaaggctgc agtgggtgag ctaccagaga aatctaagca gcaggagatc 480
40 taccaggagc tgacccggct gaaggctgca gtgggtgagc ttccagataa atccaagcag 540
41 caggagatct accaggagct gacccagctg aaggctg 577
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44 <211> LENGTH: 1212
45 <212> TYPE: DNA
46 <213> ORGANISM: Pan troglodytes
48 <400> SEQUENCE: 2
49 atgagtgact ccaaggaacc aagactgcag cagctgggcc tcctggagga ggaacagctg 60
50 agaggccttg gattccgaca gaatcgaggc tacaagagct tagcagggtg tcttggccat 120
51 ggtccccctgg tgctgcact cctctccttc acgctttgg ctgggctct tgtccaagtg 180
52 tccaagggtcc ccagctccat aagtcaagaa gaatccaggc aagacgtat ctaccagaac 240
53 ctgacccggc tttaaagctgc agtgggtgag ctctcagaga aatccaagct gcaggagatc 300
54 taccaggagc tgacccagct gaaggctgca gtgggtgagc ttccagagaa atctaagcag 360
55 caggagatct accaggagct gacccggctg aaggctgcag tgggtgagct tccagagaaa 420
56 tctaagatgc aggagatcta ccaggagctg actcggctga aggctgcagt gggtgagct 480

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57 ccagagaaat ctaagatgca ggagatctac caggagctga ctcggctgaa ggctgcagtg 540
58 ggttagctc cagagaaatc taagcagcag gagatctacc aggagctgac ccggctgaag 600
59 gctgcagtgg gtgagcttcc agagaaatct aagcagcagg agatctacca ggagctgacc 660
60 cggctgaagg ctgcagtggg tgagcttcca gagaaatcta agcagcagga gatctaccag 720
61 gagctgaccc agctgaaggc tgcaagtggaa cgccctgtgcc gcccgtgccct tgggaaatgg 780
62 acattttcc aagggaaactg ttacttcatg tctaactccc agcggaaactg gcacgactcc 840
63 atcaactgcct gcaaagaagt gggggcccaag ctcgtcgtaa tcaaaaagtgc tgaggagcag 900
64 aacttcctac agctgcagtc ttccagaagt aaccgcctca cctggatggg acttcagat 960
65 ctaaatgagg aaggcacgtg gcaatgggtg gacggctcac ctctgttgcc cagcttcaac 1020
66 cagtatttgg aacagaggaga gcccaacaac gttggggagg aagactgcgc ggaatttagt 1080
67 ggcataatggct ggaatgacga caaatgtaat cttgc当地at tctggatctg caaaaagtcc 1140
68 gcagcctcct gctccaggaa tgaagaacag tttcttctc cagccccctgc caccggaaac 1200
69 ccccccctcg cg 1212
71 <210> SEQ ID NO: 3
72 <211> LENGTH: 1215
73 <212> TYPE: DNA
74 <213> ORGANISM: Homo sapiens
76 <400> SEQUENCE: 3
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78 agaggccctg gattccgaca gactcgagga tacaagagct tagcagggtg tcttggccat 120
79 ggtccccctgg tgctgcaact cctctccttc acgctttgg ctgggctct tgcataaagt 180
80 tccaaaggctcc agctcccat aagtccaggaa caatccaggc aagacgcgtt ctaccagaac 240
81 ctgacccago ttaaagctgc aatgggtgaa ctctcagaga aatccaagct gcaggagatc 300
82 taccaggagc tgaccaggct gaaggctgca gtgggtgagc ttccagagaa atctaagctg 360
83 caggagatct accaggagct gacccggctg aaggctgcag tgggtgagct tccagagaaa 420
84 tctaaagctgc aggagatcta ccaggagctg acctggctga aggctgcagt gggtgagctt 480
85 ccagagaaat ctaagatgca ggagatctac caggagctga ctcggctgaa ggctgcagtg 540
86 ggttagctc cagagaaatc taagcagcag gagatctacc aggagctgac ccggctgaag 600
87 gctgcagtgg gtgagcttcc agagaaatct aagcagcagg agatctacca ggagctgacc 660
88 cggctgaagg ctgcagtggg tgagcttcca gagaaatcta agcagcagga gatctaccag 720
89 gagctgaccc agctgaaggc tgcaagtggaa cgccctgtgcc accccctgtcc tgggaaatgg 780
90 acattttcc aagggaaactg ttacttcatg tctaactccc agcggaaactg gcacgactcc 840
91 atcaaccgcct gcaaagaagt gggggcccaag ctcgtcgtaa tcaaaaagtgc tgaggagcag 900
92 aacttcctac agctgcagtc ttccagaagt aaccgcctca cctggatggg acttcagat 960
93 ctaaatcagg aaggcacgtg gcaatgggtg gacggctcac ctctgttgcc cagcttcaac 1020
94 cagtatttgg aacagaggaga gcccaacaac gttggggagg aagactgcgc ggaatttagt 1080
95 ggcataatggct ggaacgacga caaatgtaat cttgc当地at tctggatctg caaaaagtcc 1140
96 gcagcctcct gctccaggaa tgaagaacag tttcttctc cagccccctgc caccggaaac 1200
97 ccccccctcg cgtag 1215
99 <210> SEQ ID NO: 4
100 <211> LENGTH: 1215
101 <212> TYPE: DNA
102 <213> ORGANISM: Macaca mulatta
104 <400> SEQUENCE: 4
105 atgagtgact cccaaaggaaacc aagactgcag cagctggacc tcctggagga ggaacagctg 60
106 ggaggccgtt gattccgaca gactcgagga tacaagagct tagcagggtg tcttggccat 120
107 ggcggccctgg tgctgcaact cctctccttc acgctttgg ctgggctct tgcataaagt 180
108 tccaaaggctcc ctgcaggatct aagtccaggaa caatccaaac aagatgcgtt ctaccagaat 240
109 ctgacccago ttaaagttgc agtcaggatc ctctcagaga aatccaagca gcaggagatc 300

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110 taccaggagc tgaccggct gaaggctgca gtggatgagc ttccctgagaa atccaagcag 360
111 caggagatct acgaggagct gaccgggtc aaggctgcag tgggtgagct tccagagaaa 420
112 tccaaagctgc aggagatcta ccaggagctg acctggctga aggctgcagt gggtgagctt 480
113 ccagagaaat ctaagatgca ggagatctac caggagctat cccggctgaa ggctgcagt 540
114 ggtgatctcc cagagaaatc caagcagcag gagatctacc aggagctgac ccggctgaaag 600
115 gctgcagtgg gtgatctccc agagaaatcc aagcagcagg agatctacca aaagctgacc 660
116 cagctgaagg ctgcagtcga tgggttgcga gacagggtcca agcaacacgga gatctaccag 720
117 gagctgatcc agctgaaggc tgcagtgaa cgcctgtgcc acccctgtcc ctgggagtg 780
118 acattttcc aaggaaactg ttatcatg tctaactccc agcggaaactg gcacgactcc 840
119 atcaccgcct gccaggaggt gggggccca gtcgtcgtaa tcaaaaagtgc tgaggagcag 900
120 aacttcctgc agctgcagtc ttccagaagt aaccgcttca cctggatggg actttcagac 960
121 ctaaatcacg aaggcacatg gcaatgggtg gatggctcac ctctgttgc cagttcaag 1020
122 cagtatttgg acaaaggaga gcccaacaat attggggagg aagactgtgc ggaatttagt 1080
123 ggcaatggct ggaacgatga caaatgcaat cttgccaat tctggatctg caaaaagtca 1140
124 gccccctccct gctccgggaa tgaagaacgg ttgctctccc cagccctac cactccaaac 1200
125 cccccctctg cgtag 1215

127 <210> SEQ ID NO: 5
128 <211> LENGTH: 1450
129 <212> TYPE: DNA
130 <213> ORGANISM: Mus musculus
132 <400> SEQUENCE: 5
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134 tcgccccctctg gatgaggaac tgctgacatc cagccacacc aggcactcca tcaaaggctt 120
135 tggcttccaa acaaattctg gattcagtag cttcacaggg tgcctggtcc acagtcaagt 180
136 ccccttggca ctgcaggtgc tcttccttagc tggttggctc tgctgtctgg ttgtcatct 240
137 tgtcaaaatgc tacaaaatac ccaggatctca ggaagaaaaac aatcagatga atgtctacca 300
138 agaactgacc cagttgaagg ctggcgtaga tcgactgtgc cgctccctgcc cctgggactg 360
139 gacgcacttc caaggaagct gttacttctt ctctgtggcc cagaagtctt ggaatgattc 420
140 tgccactgccc tgccacaatg tgggggctca acttgtggtc atcaagagtg atgaagagca 480
141 gaactttcta caacaaactt ctaagaagag aggctacact tggatggggc tcattgacat 540
142 gagcaaggag tctacatggt actgggtaga tggttcacct ctgactctca gtttcatgaa 600
143 gtattggagt aaaggagaac ctaacaacct gggagaggaa gactgtgcag agttcagaga 660
144 tgacggctgg aatgacacca aatgtactaa caagaaattc tggatctgca aaaagcttc 720
145 aacttcctgc cctagcaagt gatggccaac tccctccacc atctccacag tccaaaacc 780
146 ctgccaaatg gcagaacttt acccatagct atgcaggatc attctacttgc tctgtgacca 840
147 ttgataaacct tgacaagatc tgtaagactt tattctggca ggtagctgt ctccctgcatt 900
148 gtccttaggt ccagttgtc tccctggacca ttaatgtata gtctcctgtat gtctgcagg 960
149 tctctttggg ttagtgggtg tggctctgg ccaccttga catttaatga agtaaacaga 1020
150 catgaggtgt ccttaaatgg gttcccttca tctctctgt ctcccttctt gaggtagagac 1080
151 cacatattgc catgtcaat tgatcctgag tactcacacc tactaaattt taattcatct 1140
152 accctgcaca ccttttatg gaccccttct ttgatttcag gagctcaccc tatagactaa 1200
153 aagcacaaga gacccaaatc cttaaactatt agtcatgatc agaaattatt gtgttaattc 1260
154 tctgactcca tctctacccc tgggtggaca tggtgagcct caatgtata gacccccc 1320
155 attttttggg ggatttataa tttttattga acttactcat taacaattgt atacatatgt 1380
156 atgtataaaat ataagtataa ataaccattt tgattttgc catcctccaa aaaaaaaaaaa 1440
157 aaaaaaaaaaa 1450

159 <210> SEQ ID NO: 6
160 <211> LENGTH: 192
161 <212> TYPE: PRT

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Input Set : A:\ERP02.002APC SEQLIST.TXT
Output Set: N:\CRF4\02012006\J566866.raw

162 <213> ORGANISM: Bos taurus
 164 <220> FEATURE:
 165 <221> NAME/KEY: VARIANT
 166 <222> LOCATION: 12, 18, 63, 86, 97, 119, 128, 151, 166, 176, 177, 178
 167 <223> OTHER INFORMATION: Xaa = unallocated amino acid
 169 <400> SEQUENCE: 6
 W--> 170 Leu Leu Val Gln Val Ser Lys Val Pro Ser Ser Xaa Ser Gln Glu Gln
 171 1 5 10 15
 172 Ser Xaa Gln Asp Ala Ile Tyr Gln Asn Leu Thr Gln Leu Lys Ala Ala
 173 20 25 30
 174 Val Gly Glu Leu Ser Glu Lys Ser Lys Leu Gln Glu Ile Tyr Gln Glu
 175 35 40 45
 176 Leu Thr Gln Leu Lys Ala Ala Val Gly Glu Leu Pro Glu Lys Xaa Lys
 177 50 55 60
 178 Gln Gln Glu Ile Tyr Gln Glu Leu Thr Arg Leu Lys Ala Ala Val Gly
 179 65 70 75 80
 180 Glu Leu Pro Glu Lys Xaa Lys Leu Gln Glu Ile Tyr Gln Glu Leu Thr
 181 85 90 95
 182 Xaa Leu Lys Ala Ala Val Gly Glu Leu Pro Glu Lys Ser Lys Met Gln
 183 100 105 110
 184 Glu Ile Tyr Gln Glu Leu Xaa Arg Leu Lys Ala Ala Val Gly Glu Xaa
 185 115 120 125
 186 Pro Glu Lys Ser Lys Gln Gln Glu Ile Tyr Gln Glu Leu Thr Arg Leu
 187 130 135 140
 188 Lys Ala Ala Val Gly Glu Xaa Pro Glu Lys Ser Lys Gln Gln Glu Ile
 189 145 150 155 160
 190 Tyr Gln Glu Leu Thr Xaa Leu Lys Ala Ala Val Gly Glu Leu Pro Xaa
 191 165 170 175
 192 Xaa Xaa Lys Gln Gln Glu Ile Tyr Gln Glu Leu Thr Gln Leu Lys Ala
 193 180 185 190
 196 <210> SEQ ID NO: 7
 197 <211> LENGTH: 404
 198 <212> TYPE: PRT
 199 <213> ORGANISM: Pan troglodytes
 201 <400> SEQUENCE: 7
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 203 1 5 10 15
 204 Glu Glu Gln Leu Arg Gly Leu Gly Phe Arg Gln Asn Arg Gly Tyr Lys
 205 20 25 30
 206 Ser Leu Ala Gly Cys Leu Gly His Gly Pro Leu Val Leu Gln Leu Leu
 207 35 40 45
 208 Ser Phe Thr Leu Leu Ala Gly Leu Leu Val Gln Val Ser Lys Val Pro
 209 50 55 60
 210 Ser Ser Ile Ser Gln Glu Glu Ser Arg Gln Asp Val Ile Tyr Gln Asn
 211 65 70 75 80
 212 Leu Thr Gln Leu Lys Ala Ala Val Gly Glu Leu Ser Glu Lys Ser Lys
 213 85 90 95
 214 Leu Gln Glu Ile Tyr Gln Glu Leu Thr Gln Leu Lys Ala Ala Val Gly
 215 100 105 110

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216 Glu Leu Pro Glu Lys Ser Lys Gln Gln Glu Ile Tyr Gln Glu Leu Thr
 217 115 120 125
 218 Arg Leu Lys Ala Ala Val Gly Glu Leu Pro Glu Lys Ser Lys Met Gln
 219 130 135 140
 220 Glu Ile Tyr Gln Glu Leu Thr Arg Leu Lys Ala Ala Val Gly Glu Leu
 221 145 150 155 160
 222 Pro Glu Lys Ser Lys Met Gln Glu Ile Tyr Gln Glu Leu Thr Arg Leu
 223 165 170 175
 224 Lys Ala Ala Val Gly Glu Leu Pro Glu Lys Ser Lys Gln Gln Glu Ile
 225 180 185 190
 226 Tyr Gln Glu Leu Thr Arg Leu Lys Ala Ala Val Gly Glu Leu Pro Glu
 227 195 200 205
 228 Lys Ser Lys Gln Gln Glu Ile Tyr Gln Glu Leu Thr Arg Leu Lys Ala
 229 210 215 220
 230 Ala Val Gly Glu Leu Pro Glu Lys Ser Lys Gln Gln Glu Ile Tyr Gln
 231 225 230 235 240
 232 Glu Leu Thr Gln Leu Lys Ala Ala Val Glu Arg Leu Cys Arg Arg Cys
 233 245 250 255
 234 Pro Trp Glu Trp Thr Phe Phe Gln Gly Asn Cys Tyr Phe Met Ser Asn
 235 260 265 270
 236 Ser Gln Arg Asn Trp His Asp Ser Ile Thr Ala Cys Lys Glu Val Gly
 237 275 280 285
 238 Ala Gln Leu Val Val Ile Lys Ser Ala Glu Glu Gln Asn Phe Leu Gln
 239 290 295 300
 240 Leu Gln Ser Ser Arg Ser Asn Arg Phe Thr Trp Met Gly Leu Ser Asp
 241 305 310 315 320
 242 Leu Asn Glu Glu Gly Thr Trp Gln Trp Val Asp Gly Ser Pro Leu Leu
 243 325 330 335
 244 Pro Ser Phe Asn Gln Tyr Trp Asn Arg Gly Glu Pro Asn Asn Val Gly
 245 340 345 350
 246 Glu Glu Asp Cys Ala Glu Phe Ser Gly Asn Gly Trp Asn Asp Asp Lys
 247 355 360 365
 248 Cys Asn Leu Ala Lys Phe Trp Ile Cys Lys Lys Ser Ala Ala Ser Cys
 249 370 375 380
 250 Ser Arg Asp Glu Glu Gln Phe Leu Ser Pro Ala Pro Ala Thr Pro Asn
 251 385 390 395 400
 252 Pro Pro Pro Ala
 256 <210> SEQ ID NO: 8
 257 <211> LENGTH: 404
 258 <212> TYPE: PRT
 259 <213> ORGANISM: Homo sapiens
 261 <400> SEQUENCE: 8
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 263 1 5 10 15
 264 Glu Glu Gln Leu Arg Gly Leu Gly Phe Arg Gln Thr Arg Gly Tyr Lys
 265 20 25 30
 266 Ser Leu Ala Gly Cys Leu Gly His Gly Pro Leu Val Leu Gln Leu Leu
 267 35 40 45
 268 Ser Phe Thr Leu Leu Ala Gly Leu Leu Val Gln Val Ser Lys Val Pro

RAW SEQUENCE LISTING ERROR SUMMARY DATE: 02/09/2006
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Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:1; N Pos. 34,53,189,258,289,3~~87~~

Seq#:6; Xaa Pos. 12,18,63,86,97,119,128,151,166,176,177,178

VERIFICATION SUMMARY

PATENT APPLICATION: US/10/566,866

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Input Set : A:\ERP02.002APC SEQLIST.TXT
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L:11 M:270 C: Current Application Number differs, Replaced Current Application No
L:11 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:32 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1 after pos.:0
M:341 Repeated in SeqNo=1
L:170 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6 after pos.:0
M:341 Repeated in SeqNo=6

STATISTICS SUMMARY DATE: 02/09/2006
PATENT APPLICATION: US/10/566,866 TIME: 15:31:35

Input Set : A:\ERP02.002APC SEQLIST.TXT
Output Set: N:\CRF4\02012006\J566866.raw

Application Serial Number: US/10/566,866
Alpha or Numeric or Xml: Numeric
Application Class:
Application File Date: 02-02-2006
Art Unit: IFWP
Software Application: FastSEQ
Total Number of Sequences: 15
Total Nucleotides: 6444
Total Amino Acids: 2551
Number of Errors: 0
Number of Warnings: 13
Number of Corrections: 2

MESSAGE SUMMARY

270 C: 1 (Current Application Number differs)
271 C: 1 (Current Filing Date differs)
341 W: 13 ((46) "n" or "Xaa" used)